

Appl. No. 10/813,714
Amdt. dated January 27, 2006
Reply to Office Action of November 25, 2005

REMARKS

Upon entry of the present amendment, claims 1-12 are pending in the application, of which claims 1, 3 and 4 are independent.

The applicant thanks the Examiner for his helpful remarks the interview which took place on January 26, 2006. Proposed amendments to the specification and arguments presented going to the rejection of claims 1-12, previously faxed to the Examiner, were discussed with respect to rejections under 35 USC 103 as being unpatentable over Shima (2002/0196423) in view of Nakatsuka (6229625). The Examiner indicated that the amendments to the specification, and the arguments presented against the Examiner's rejections obviated the rejection under 35 USC 103.

The above-identified Office Action has been reviewed, the references carefully considered, and the Examiner's comments carefully weighed. In view thereof, the present Amendment is submitted. It is contended that by the present Amendment, all bases of rejection set forth in the Office Action have been traversed and overcome. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

IN THE DRAWINGS

The Examiner has objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Reference numbers 2, 92, and D₂.

Applicant has amended the specification in order to include the reference numbers 2, 92 and D₂, which were inadvertently left out of the original specification. Applicant respectfully submits that all of the above amendments are fully supported by the original application.

Applicant also respectfully submits that the above amendments do not introduce any new matter

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into the application. Based on the above amendments to the specification, applicant believes that the objection to the drawings is overcome and it is respectfully requested that the objection be reconsidered and withdrawn.

IN THE CLAIMS

Claim Rejections – 35 USC §103

The Examiner has rejection Claims 1, 3 and 4 under 35 USC §103(a) as being unpatentable over Shima (2002/0196423) in view of Nakatsuka (6229625).

Referring to claim 1, the Examiner states that Shima shows a ranging apparatus with plural cameras (figure 2A Ref 11 and 12), plural distortion correction means (Paragraph 6 and 7), a corrective computation means (figure 2A Ref 25), and a ranging computation means but does not show a corrected image selection means. Nakatsuka shows a distortion correction means and corrected image selection means which selects the most appropriately corrected image (column 2 lines 59-65), but does not show plural cameras, and a ranging computation means. Referring to claim 3, the Examiner states that Shima shows a method which determines distance to objects with a first step wherein plural cameras function as image acquiring means and take images of a target (figure 2A Ref 11 and 12), a second step of correcting after eliminating distortion (paragraph 6 and 7), and a final step of ranging distance to the object. Shima does not show a third step of selecting among plural corrective images an appropriate corrected image. Nakatsuka shows a step of distortion correction means and corrected image selection means which selects the most appropriately corrected image (column 2 lines 59-65), but does not show a first step using plural cameras to acquire images of a target, and a final step of a ranging computation of the distance to the target. Referring to claim 4, the Examiner states that Shima shows ranging program that determines distance to objects using the following steps. A first step wherein plural cameras function as image acquiring means and take images of a target (figure 2A Ref 11 and 12), a second step of correcting after eliminating distortion (paragraph 6 and 7), and a final step of ranging distance to the object. Shima does

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not show a third step of selecting among plural corrective images an appropriate corrected image. As before, it is the Examiner's position that Nakatsuka shows a step of distortion correction means and corrected image selection means which selects the most appropriately corrected image (Column 2 lines 59-65), but does not show a first step of using plural cameras to acquire images of a target, and a final step of a ranging computation of the distance to the target.

It is the Examiner's position that it would have been obvious to modify the invention of Shima with that of Nakatsuka because with any image processing like the image processing that is done in Shima an image processor can make mistakes and an image selection means would be able to select the proper image for the application as taught in Nakatsuka.

The applicant respectfully disagrees with this rejection as discussed below.

Upon review of Nakatsuka, applicant notes that Nakatsuka's disclosed method and apparatus is very distinct from the present invention in many respects, including the corrected image selection process to which the Examiner has specifically referred. Nakatsuka discloses a technique which enables even an unskilled operator in the field of image processing to give a high-quality image, wherein a single image from a single camera is processed, and wherein the apparatus/method determines an image processing parameter set in an image conversion device which converts image data of an original into image recording data. This structure enables even an unskilled operator in the field of image processing to determine the optimum image processing parameter.

Moreover, the corrected image selection process of Nakatsuka, discussed at his col. 2, lines 59-65, is a process performed by an operator, not one that is automatically performed, and does not otherwise involve multiple corrected images as in the present invention. As explained by Nakatsuka, "This structure enables selection of a desired image out of the images before and after the correction of the image processing parameter and display of the desired image on the display unit, in response to the external operation instruction. The operator can thus readily compare the image after the correction with the image

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before the correction and accurately evaluate the image after the correction (emphasis added)."

Thus, such comparison is very distinct from the corrected image selection means/method/program of the present invention in which a most appropriate corrected image, from among a plurality of corrected images, is automatically selected. It is noted, that under PTO procedures, the Examiner must interpret the claimed corrected image selection means/method/program as encompassing only the corresponding structure/step/processing discussed in the specification, and equivalents thereof. "Section 112, ¶6 recites a mandatory procedure for interpreting the meaning of a means-or step-plus-function claim element. The claim limitations 'shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.' 35 U.S.C. §112, ¶ 6." *Al-Site Corp. v. VSI International, Inc.*, 174 F.3d 1308 (Fed.Cir.1994). Further, "the PTO was required by statute to look to [the] specification and construe the 'means' language recited in the ...claim as limited to the corresponding structure disclosed in the specification and equivalents thereof." *In Re Donaldson*, 16 F.3d 1189 (Fed.Cir.1994) Clearly, Nakatsuka's corrected image selection process is not equivalent to the claimed features, and therefore is not encompassed within applicant's present invention.

Additionally, the motivation for combining the two references (as proposed in the rejection) is based entirely on impermissible hindsight coming from the Examiner, as opposed to any teaching, suggestion or motivation coming from the references. Again, Nakatsuka does not use of two different cameras in order to calculate parallax by the principles of triangulation, but only uses a single image from a single camera, and specifically converts image data of an original into image recording data. This is very distinct from the range finder of Shima involving a pair of cameras, parallax and the principal of triangulation. Given such very distinct systems, including the fact that there is no way to determine distance via parallax in Nakatsuka's system because it does not have two cameras, the references provide no motivation for using the corrected image selection process of Nakatsuka in a range finding apparatus such as that of Shima, and persons of ordinary skill in the art would not consider the proposed modification

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to be obvious.

Still further, given the fact that Shima fails to corrected image selection means which selects the most appropriately corrected image (as conceded by the Examiner), and the fact that Nakatsuka does not teach the corrected image selection means/method/program as claimed or any equivalent thereof, any hypothetical combination of the two references based on the actual teachings thereof would not achieve or make obvious the invention of claims 1, 3 and 4.

Based on the foregoing and the Examiner's comments during the January 26, 2006 interview, the rejections of the claims 1-12 based on the Shima and Nakatsuka references are believed to be overcome in relation to present claims 1-12 and it is respectfully requested that the rejections be reconsidered and withdrawn.

CONCLUSION

For all of the above mentioned reasons, applicant requests reconsideration and withdrawal of the objections and rejections of record, and allowance of all pending claims.

Applicant respectfully submits that the above amendments are fully supported by the original disclosure, including the specification, drawings and claims, and that no new matter is introduced by the above amendments. The application is now believed to be in condition for allowance, and a notice to this effect is earnestly solicited.

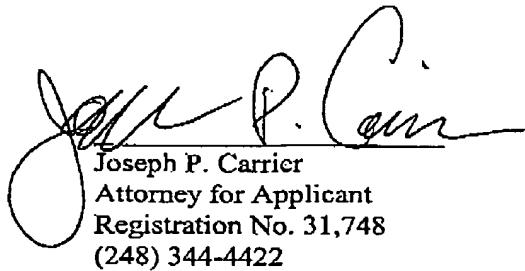
If the Examiner is not fully convinced of the allowability all of the claims now in the application, applicant respectfully requests that the Examiner telephonically contact applicant's undersigned representative to expeditiously resolve prosecution of the application.

Favorable reconsideration is respectfully requested.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION

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Annel L. Caine
Dated: January 27, 2006